Stark State COLLEGE WAP

ASSOCIATE OF SCIENCE

BIOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2024-25 Catalog

Effective Summer 2024

1270

Arts and Sciences Division

Biology Department

| | | | | Completed | | | | |
|---|--|---------|--|-----------|--|--|--|--|
| Course Number | Course Title | Credits | Pre- and Co-Requisites | Sem./Year | | | | |
| FRESHMAN EXPERIENCE | | | | | | | | |
| SSC101 | Student Success Seminar^^ | 1 | Take first semester | | | | | |
| ENGLISH COMPOSITION AND ORAL COMMUNICATION: 6 credit hours | | | | | | | | |
| ENG124 | College Composition^ (required) | 3 | ENG011 or Proficiency | | | | | |
| ENG221 | Technical Report Writing | 3 | ENG124 | | | | | |
| ENG231 | College Composition II | 3 | ENG124 | | | | | |
| COM121 | Effective Speaking | 3 | | | | | | |
| COM122 | Interpersonal Communication | 3 | | | | | | |
| SOCIAL AND BEHAVIORAL SCIENCES: 6 credit hours across two disciplines | | | | | | | | |
| PSY121 | General Psychology^ | 3 | IDS102 or Proficiency | | | | | |
| SOC121 | Sociology^ | 3 | IDS102 or Proficiency | | | | | |
| BUS122 | Basic Economics^ | 3 | IDS102 or Proficiency | | | | | |
| SOC225 | Diversity in American Society (required) | 3 | IDS102 or Proficiency | | | | | |
| ARTS AND HUM | ANITIES: 6 credit hours across two disciplines | | | | | | | |
| ENG233 | British Literature: Med to 1785 | 3 | ENG124 | | | | | |
| ENG234 | British Literature: 1785 to Present | 3 | ENG124 | | | | | |
| ENG236 | American Literature: Colonial to 1865 | 3 | ENG124 | | | | | |
| ENG237 | American Literature: 1865 to Present | 3 | ENG124 | | | | | |
| HIS121 | U.S. History I to 1877 | 3 | | | | | | |
| HIS122 | U.S. History II from 1877 | 3 | | | | | | |
| PHL122 | Ethics | 3 | | | | | | |
| MATHEMATICS | s, STATISTICS, AND LOGIC: 4 credit hours mi | nimum | | | | | | |
| MTH125 | College Algebra^ | 4 | MTH023 or Pre-Co-MTH025 or Proficiency | | | | | |
| MTH135 | Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement. | 5 | MTH025 or Proficiency | | | | | |
| MTH223 | Analytic Geometry and Calculus I^* | 4 | MTH135 or (MTH125 and MTH130) or Proficiency | | | | | |

[^] Based on SSC placement scores

^{^^}To promote student success, this course should be taken in the first semester

^{*}Required for Ohio Guaranteed Transfer Pathways in biology.

| NATURAL SCIENCES: 18 credit hours required | | | | | | | |
|--|--|-------|--|--|--|--|--|
| BIO141 | General Biology I (lab) | 4 | | | | | |
| BIO142 | General Biology II (lab) | 4 | | | | | |
| CHM141 | General Chemistry I (lab)▲ | 5 | (CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) | | | | |
| CHM142 | General Chemistry II (lab) | 5 | CHM141 | | | | |
| BIOLOGY CORE ELECTIVES: 4-8 credit hours minimum as needed to meet total credit hour requirement | | | | | | | |
| BIO200 | Ecology (lab) ▲- | 4 | BIO141 or BIO142 | | | | |
| BIO221 | Principles of Microbiology (lab) | 4 | BIO122 or BIO123 or BIO127 or BIO141 | | | | |
| BIO241 | General Genetics (lab)▲- | 4 | BIO141 | | | | |
| BIO242 | Cell and Molecular Biology (lab) ▲+ | 4 | BIO141 | | | | |
| CAPSTONE: Select a minimum of one course from the following | | | | | | | |
| SCI271 | Special Topics in Science I | 1 | Sophomore in program | | | | |
| SCI272 | Special Topics in Science II | 2 | Sophomore in program | | | | |
| SCI273 | Special Topics in Science III | 3 | Sophomore in program | | | | |
| CONCENTRATION ELECTIVES: Select additional courses to complete the total of 60 - 63 credit hours | | | | | | | |
| CHM241 | Organic Chemistry I (lab)▲- | 5 | CHM142 | | | | |
| CHM242 | Organic Chemistry II (lab) ▲+ | 5 | CHM241 | | | | |
| CHM243 | Biochemistry I | 3 | CHM123 or CHM141 | | | | |
| CHM105 | Introduction to Forensic Science (lab) | 3 | | | | | |
| CHM205 | Forensic Chemistry (lab) | 4 | CHM123 or CHM141 or CHM105 | | | | |
| MTH124 | Statistics^ | 3 | MTH022 or Pre-Co-MTH024 or Proficiency | | | | |
| PHY121 | College Physics I with Algebra (lab)^ | 4 | MTH135 or (MTH125 and MTH130) or Proficiency | | | | |
| PHY122 | College Physics II with Algebra (lab) ▲+ | 4 | PHY121 | | | | |
| | TOTAL CREDIT HOURS (60 credits minimum) | 60-63 | | | | | |

[^] Based on SSC placement scores

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

^{▲-}Fall only courses. Please see your academic advisor for availability.

^{▲+}Spring only courses. Please see your academic advisor for availability.

FULL-TIME STUDENT ADVISING NOTES

Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time students who plan to finish in two years.

Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at http://www.transferology.com to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer 36 approved and TAG approved courses.

Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

| First Semester | onionio una compo numbro una componencia est una | Credit Hours | Pre- and Co-requisites |
|--|--|--------------|--|
| SSC101 | Student Success Seminar^^ | 1 | Take first semester |
| BIO141 | General Biology I (lab) | 4 | |
| CHM141 | General Chemistry I [^] (lab) ▲ | 5 | (CHM101 or Proficiency) or |
| | | | (MTH024 or MTH025 or |
| | | | Proficiency) |
| Mathematics, Statistics, and Logic Elective 4 | | <u>4-5</u> | Check for prerequisite |
| | | 14-15 | |
| Second Semester | | | |
| BIO142 | General Biology II (lab) | 4 | |
| CHM142 | General Chemistry II (lab) | 5 | CHM141 |
| ENG124 | College Composition [^] (required) | 3 | ENG011 or Proficiency |
| Social and Behavioral | Science Elective ² | 3 15 | Check for prerequisite |
| _ | | 15 | |
| Summer Summer | 10.10 | • | |
| | and Oral Communication Elective ¹ | 3 | Check for prerequisite |
| Concentration Group Elective ⁶ | | 3-5 6-8 | Check for prerequisite |
| T1' 10 4 | | 6-8 | |
| Third Semester Biology Core Elective | 5 | 4 | Charle for managinita |
| SOC225 | | 4 3 | Check for prerequisite IDS102 or Proficiency |
| Arts and Humanities H | Diversity in American Society (required) | 3 | Check for prerequisite |
| Concentration Elective | | 3- <u>5</u> | Check for prerequisite Check for prerequisite |
| Concentration Elective | | 13-15 | Check for prerequisite |
| Fourth Semester | | 13-13 | |
| SCI271, SCI272, or | Special Topics in Science I, II, or III | 1-3 | Sophomore in program |
| SCI273 | 2 p | 1.0 | septientere in pregram |
| Arts and Humanities E | Elective ³ | 3 | Check for prerequisite |
| Biology Core Elective ⁵ OR Mathematics, Statistics, and Logic Elective ⁴ | | 4 | Check for prerequisite |
| Concentration Elective ⁶ | | <u>3-5</u> | Check for prerequisite |
| | | 13-15 | <i>J</i> 1 1 |
| | TOTAL CREDITS | 60-63 | |

[^] Based on SSC placement scores

^{^^} To promote student success, this course should be taken in the first semester

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

¹ English Composition and Oral Communication Electives: COM121, COM122, ENG221, ENG231

² Social and Behavioral Science Electives: PSY121, SOC121, BUS122

³ Arts and Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

⁴ Mathematics, Statistics, and Logic Electives: MTH125 or MTH135 or MTH223

⁵ Biology Core Electives: BIO200, BIO221, BIO241, BIO242

⁶ Concentration Electives: CHM241, CHM242, CHM243, CHM105, CHM205, MTH124, PHY121 or PHY122

^{▲+}Spring only courses. Please see your academic advisor for availability.